



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

RBE350A93-3302-02
Job Sheet 199656



Part No: RBE350A93-3302-02

Job Qty: 8 pcs *6 MLL*

Part Name: Tail Rotor Hub Lock Wrench



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 8/29/19

Job Tracking No:

Due Date: 9/9/19

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG RBE350A93-3302-02 REV:M IPP REV A 18.01.30 NEW ISSUE RQ VERIFIED BY DP/IPP Rev. B
19.08.26 drawing revision DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Small Fab - 1	8 pcs	9/9/19		0.00	1.60	Small Fab - 1		
							Small Fab - 2		
							Small Fab - 3		
							Small Fab - 4		
							Small Fab - 5		
							Small Fab - 6		
							Small Fab - 7		
							Small Fab - 8		<i>ED 19-11-21</i>
110	QC 5	8 pcs	9/9/19		0.00	0.00	QC 5 - 10		
							QC 5 - 12		
							QC 5 - 17		
							QC 5 - 18		
							QC 5 - 19		
							QC 5 - 22		
							QC 5 - 24		
							QC 5 - 3		
							QC 5 - 43		
							QC 5 - 49		
							QC 5 - 51		
							QC 5 - 58		
							QC 5 - 68		
							QC 5 - 9		
							QC 5 - 50		
							QC 5 - 30		
							QC 5 - 40		<i>NOV 28 2019</i>
							QC 5 - 61		
							QC 5 - 81		
130	Packaging 3-1 - Stock - B4B	8 pcs	9/9/19		0.00	0.00	Packaging 3 - 1 - B4B		
							Packaging 3 - 2 - B4B		
							Packaging 3 - 3 - B4B		

Plex 8/29/19 8:28 AM Dart.lajeunesse.marie



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S233664



Part: RBE350A93-3302-02

Job No: 199656

Serial No/Batch: S233664

Revision: M

Inspector:

Exp Date:

Instructions:

Date: 11/21/19

				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	DA
				Packaging 3 - 7 - B4B	2
				Packaging 3 - 8 - B4B	9-89
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
140 QC 21 - FG	8 pcs	9/9/19	0.00 0.00	QC 21 - FG - 21	
				QC 21 - FG - 70	DAS
				QC 21 - SA - 53	21

Part Op 100 - Assemble as per drawing see note 8 and 9.
 Descriptions: 110 - QC5- Inspect part completeness to step on W/O
 130 - Identify as per dwg & Stock Location: _____ The tool must be packaged with a desiccant bag into a tight fitting sealed plastic bag as per DWG.
 140 - QC21- Final Inspection - Work Order Release

DEC 03 2019

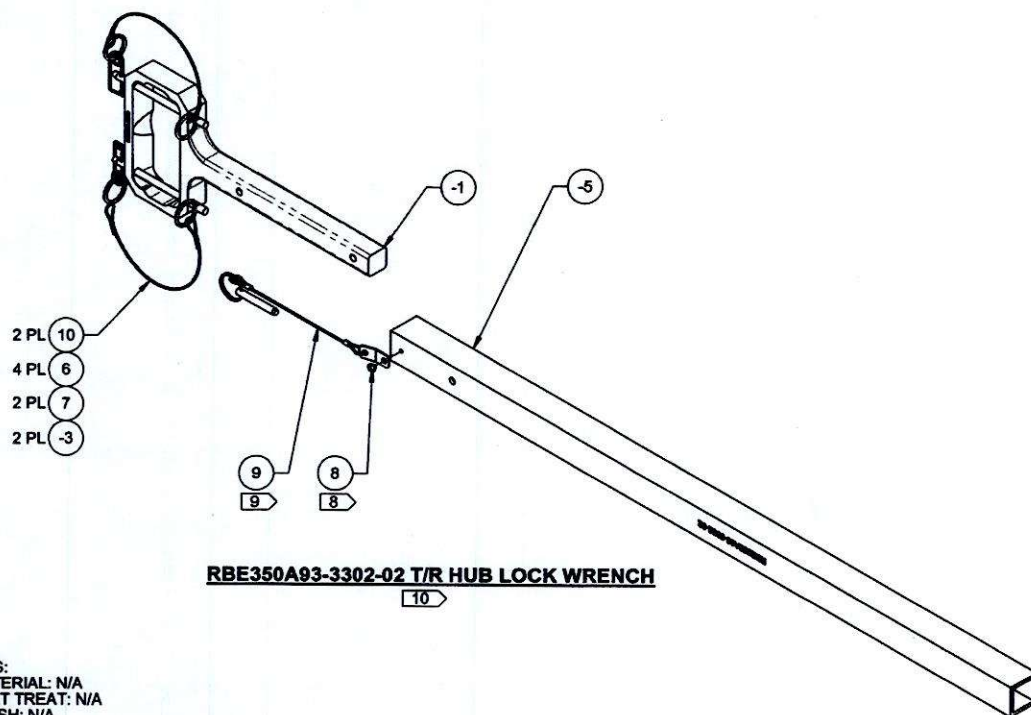
Job BOM

Part / Item	Component Name	Quantity	Operation	Container
30345T971	SS Nylon Coated Lanyard 1/16" Diameter X 8" Long	14 16 (2 ea)	100-Small Fab - 1	211036
90174A113	Retaining Pin	14 16 Ea (2 ea)	100-Small Fab - 1	181322-200 932
90177A218	Split Ring	28 32 Ea (4 ea)	100-Small Fab - 1	172646
91772A188	SS Pan Head Phillips Screw #8-32 X 1/8" Long	7 8 (1 ea)	100-Small Fab - 1	211725
94975A162	Quick Release Pin	7 8 Ea (1 ea)	100-Small Fab - 1	198267
RBE350A93-3302-02-1	Handle	7 8 pcs (1 ea)	100-Small Fab - 1	187916
RBE350A93-3302-02-3	Pin	14 16 pcs (2 ea)	100-Small Fab - 1	208446
RBE350A93-3302-02-5	Extension Handle	7 8 pcs (1 ea)	100-Small Fab - 1	209771

Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
100-Small Fab - 1	30345T971	16	0	0
	90174A113	16	151	0
	90177A218	32	131	0
	91772A188	8	0	0
	94975A162	8	26	0
	RBE350A93-3302-02-1	8	26	0
	RBE350A93-3302-02-3	16	31	0
	RBE350A93-3302-02-5	8	26	0
Part Specifications				
Specifications could not be found.				

Plex 8/29/19 8:28 AM Dart.lajeunesse.marie

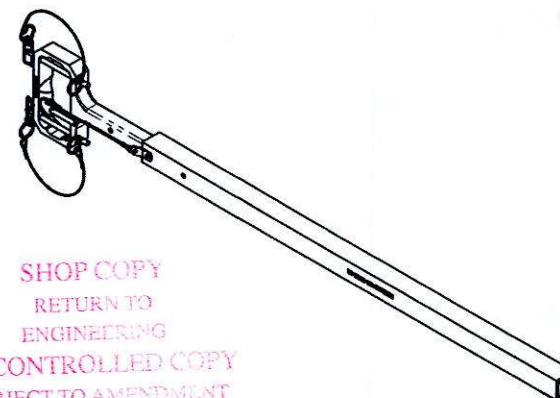
ITEM #	QTY	PART #	PART TITLE
-1	1	RBE350A93-3302-02-1	HANDLE
-3	2	RBE350A93-3302-02-3	PIN
-5	1	RBE350A93-3302-02-5	EXTENSION HANDLE
6	4	McMaster#90177A218 OR EQUIV	ZINC PLATED STEEL SPLIT RING 1" OD X 13/16" ID X 1/8" THK
7	2	McMaster#90174A113 OR EQUIV	ZINC PLATED STEEL STRONG HOLD WIRE SNAP COTTER PIN 1/16" DIA. X 1-1/16" LG.
8	1	McMaster#91772A188 OR EQUIV	SS PAN HEAD PHILLIPS SCREW #8-32 X 1/8" LG.
9	1	McMaster#94975A162 OR EQUIV	SS RING GRIP QUICK RELEASE PIN WITH LANYARD 1/4" DIA X 1-5/16" USABLE LENGTH
10	2	McMaster#30345T971 OR EQUIV	SS NYLON COATED LANYARD 1/16" DIA. X 8" LG.



RBE350A93-3302-02 T/R HUB LOCK WRENCH

NOTES:

- 1) MATERIAL: N/A
- 2) HEAT TREAT: N/A
- 3) FINISH: N/A
- 4) TOLERANCES: X.X = $\pm 0.1"$ / $\pm 1"$
X.XX = $\pm 0.01"$ / $\pm 0.5"$
X.XXX = $\pm 0.005"$ / $\pm 0.1"$
X.XXXX = $\pm 0.0005"$ / $\pm 0.05"$
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = $\pm 0.005"$
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) IDENTIFICATION: N/A
- 7) ASSEMBLE AS SHOWN
- 8) INSTALL ITEM 8 HAND TIGHT
- 9) INSTALL ITEM 9 WITH ITEMS -1 AND -5
- 10) THE TOOL ASSY MUST BE PACKAGED WITH A DESICCANT BAG INTO A TIGHT FITTING SEALED PLASTIC BAG



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 199656 MWS
19-08-29

FOR OLDER REV'S SEE PREVIOUS PDFs TEMPLATE UPDATED PER DART HBY STANDARDS ITEM -7 CARR LANE #CL-2-C CHANGED FOR ITEM 10 McMaster#30345T971 ITEM -9 CHANGED FOR ITEM 6 ITEM -11 CHANGED FOR ITEM 7 ITEM -13 CHANGE FOR ITEM 9 ITEM -15 McMaster#90272A188 CHANGED FOR ITEM 8 McMaster#91772A188 ITEM -17 REMOVED ITEM -1 DIMENSION $\phi 250 \pm 0.05/0$ & 25 TOOLING HOLE CHANGED FOR $\phi 0.286$ 2 PL. DIMENSIONS 1.00/0.98 CHANGED FOR 0.875, DIMENSION 1.835 REMOVED, DIMENSION 5.49 ADDED, ENGRAVING S/N & MADE IN USA REMOVED, DIMENSION 2X $\phi 0.281$ CHANGED FOR $\phi 0.286$ 2 PL. DIMENSION 2.028 CHANGED FOR 2.034, DIMENSION 4X R.125 CHANGED FOR R0.13 4 PL. DIMENSION 3.07 REPLACED BY 8.74, MATERIAL 8081 CHANGED FOR 8061-T6 / 7075-T6, FINISH BLACK ANODIZE CHANGED FOR RED ANODIZE ITEM -3 DIMENSION 2X $\phi 0.125$ CHANGED FOR $\phi 0.156$ 2 PL. DIMENSION 3.67 CHANGED FOR 3.670, CENTER DRILL ADDED, MATERIAL S.S CHANGED FOR 303/304/316 STAINLESS STEEL ITEM -5 DIMENSION $\phi 250 \pm 0.05/0$ CHANGED FOR $\phi 0.286$, DIMENSION 3.00 CHANGED FOR 3.000, MATERIAL ALUMINUM SQ TUBE CHANGED FOR McMaster#6548K56, FINISH BLACK ANODIZE CHANGED FOR RED ANODIZE		19-859	VM
REV.	DESCRIPTION	ECN #	BY
DESIGN	VM	DART AEROSPACE LTD	
DRAWN	VM	HAWKESBURY, ONTARIO, CANADA	
CHECKED	KPT	TOOL PART #	REV M
MFG. APPR.	FX	RBE350A93-3302-02	SHEET 1 OF 4
APPROVED		TITLE	SCALE
		T/R HUB LOCK WRENCH	NTS
DATE	2019-08-16	COPYRIGHT © 2019 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date : _____	Sequence #: _____	QTY Affected : _____		MRB (QS1042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Preservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐ ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled		FAULT CATEGORY ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					